

April 18, 2006



To: Commissioner for Patents  
 P.O. Box 1450  
 Alexandria, VA 22313-1450

Fr: George O. Saile, Reg. No. 19,572  
 28 Davis Avenue  
 Poughkeepsie, NY 12603

Subject:	Serial No. 10/786,806	02/25/04
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Kunliang Zhang et al.

CPP GMR AND MAGNETOSTRICTION  
 IMPROVEMENT BY LAMINATING Co90Fe10  
 FREE LAYER WITH THIN Te50Co50 LAYERS

#### SUPPLEMENTAL INFORMATION DISCLOSURE STATEMENT

Enclosed is Form PTO-1449, Information Disclosure Citation In An Application.

The following Patents and/or Publications are submitted to comply with the duty of disclosure under CFR 1.97-1.99 and 37 CFR 1.56.

#### CERTIFICATE OF MAILING

I hereby certify that this correspondence is being deposited with the United States Postal Service as first class mail in an envelope addressed to: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450, on April 25, 2006.

Stephen B. Ackerman, Reg. # 37761

Signature/Date

A handwritten signature of "Stephen B. Ackerman" is followed by the date "4/25/06" written in a cursive style.

The Commissioner is hereby authorized to charge the IDS Processing Fee of \$180, under 37 CFR 1.17(p), to Deposit Account No. 19-0033. A duplicate copy of this sheet is enclosed.

“The scalability of CPP-GMR heads toward over 100Gbpsi, compared with TMR heads,” by M. Takagishi et al., Toshiba, TMRC2001, August 20, 2001, investigates the scalability of CPP-GMR heads toward over 100Gbpsi, compared with TMR heads.

“Output enhancement of spin-valve giant magnetoresistance in current-perpendicular-to-plane geometry,” by H. Yuasa et al., Journal of Applied Physics, Vol. 92, No. 5, Sept. 1, 2002, pp. 2646-2650, presents a suitable material for metal-based spin-valve in current-perpendicular-to-plane (CPP) geometry.

Sincerely,



Stephen B. Ackerman,  
Reg. No. 37761



PTO/SB/08A (07-05)

Approved for use through 07/31/2006, OMB 0651-0031

U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE

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**Substitute for form 1449/PTO**

## **INFORMATION DISCLOSURE STATEMENT BY APPLICANT**

*(Use as many sheets as necessary)*

Sheet

of

Complete if Known

**Application Number**

101786, 806

**Filing Date**

02/25/04

First Name

## Art Unit

Examiner Name \_\_\_\_\_

**U. S. PATENT DOCUMENTS**

## FOREIGN PATENT DOCUMENTS

Examiner Signature		Date Considered	
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\*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant. <sup>1</sup> Applicant's unique citation designation number (optional). <sup>2</sup> See Kinds Codes of USPTO Patent Documents at [www.uspto.gov](http://www.uspto.gov) or MPEP 901.04. <sup>3</sup> Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). <sup>4</sup> For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. <sup>5</sup> Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST.16 if possible. <sup>6</sup> Applicant is to place a check mark here if English language Translation is attached.

Translation is attached.

This collection of information is required by 37 CFR 1.97 and 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 2 hours to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

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## INFORMATION DISCLOSURE STATEMENT BY APPLICANT

(Use as many sheets as necessary)

Sheet

of

Complete if Known

Application Number	10/786,866
Filing Date	02/25/04
First Named Inventor	Kunliang Zhang
Art Unit	
Examiner Name	
Attorney Docket Number	

HTIRC-02-021

### NON PATENT LITERATURE DOCUMENTS

Examiner Initials*	Cite No. <sup>1</sup>	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T <sup>2</sup>
		"the scalability of CPP-GMR heads toward over 100 Gpsi, compared with TMR heads", by M. Takagishi et al., TMR 2001, Aug. 24 2001, Toshiba.	
		"Output enhancement of spin-valve giant magnetoresistance in current-perpendicular-to-plane geometry", by H. Yasuda et al., Jpn. J. Appl. Phys., Vol. 41, No. 5, Sept. 1, 2002, pp. 2646-2650.	

Examiner Signature	Date Considered
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